



DIAND Nunavut District  
Box 100  
Iqaluit, NT  
XOA OHO

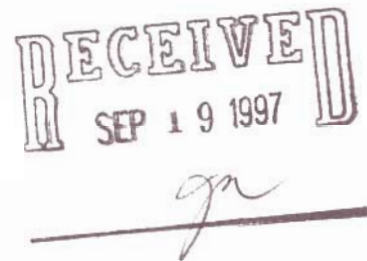
Your file    Votre référence

Our file    Notre référence

September 3, 1997

B9545-5-N4L3-1532

Mr. Henry Brown  
Senior Administrative Officer  
Hamlet of Cambridge Bay  
Cambridge Bay, NT  
XOE OCO



Dear Mr. Brown;

**Water Licence Inspection - August 13, 1997**

1. Attached for your records is the inspection report prepared as a result of the inspection carried out on water licence N4L3-1532, held by the Hamlet of Cambridge Bay.
2. May I first extend my thanks to Messrs. Blayne Penrice and Howard Babiuk for the time and effort that they have spent in order to more properly address the terms and conditions of the water licence. Our meeting was very productive and I feel that a positive working relationship has been fully established.
3. There are a number of issues which can be addressed immediately. These are detailed in the inspection report, but to summarize:
  - ☐ the 1995 and 1996 Annual Report still require to be submitted. These reports can be combined into a single report provided all of the reporting details per Part B, Item 1 are met.
  - ☐ Warning signs must be posted at the waste disposal facilities (both the dump and sewage disposal area. A warning sign at SNP Station 1532-2 would also be appropriate).
  - ☐ In order to have the water samples analysed that must be collected per licence conditions (SNP, Part B, Item 1) contact Mr. Bill Coedy, Manager, Taiga Environmental Lab, Yellowknife @ (403)-920-8129. The Hamlet can set up a contract with the Lab such that all sample bottles and preservatives will be provided.

.../2

- ☐ A bagged sewage disposal area must be built. Mr. Babiuk and myself identified a suitable location which would meet the requirements of the licence.
- ☐ The waste disposal site should be covered with granular material and fencing should be erected to reduce the amount of wind blown garbage.
- 4. Longer term issues to be addressed:
  - ☐ Work should begin on plans to correct the drainage problems at the waste disposal site. The ultimate goal should be to eliminate the accumulation of standing water with drainage towards the sewage disposal area.
  - ☐ Formal plans for the water supply modifications must be provided to the Nunavut Water Board for approval.
  - ☐ An Operation and Maintenance Plan for the waste disposal facility is a requirement of the licence. The Nunavut Water Board has recently developed guidelines for O+M plans. Contact the Board to obtain a copy of these guidelines.
  - ☐ A Terms of Reference is required for the assessment of the solid waste disposal facility. Once the assessment has been completed, remedial work may be needed at the waste disposal site. This is a multistage project which will take approximately 2 years to complete. In the interim, request a time extension from the Board in order to complete the necessary work. By copy of this letter, MACA, Cambridge Bay, is advised that you may be contacting them for assistance.
- 5. Should you have any questions, please do not hesitate to contact this office for at the above address or by phone at (819)-979-4405.

Sincerely,



Paul Smith  
Water Resources Officer  
Nunavut District

cc. **- Nunavut Water Board, Gjoa Haven**  
- DIAND Water Resources, YK  
- RMO, DIAND, Kugluktuk  
- MACA, Cambridge Bay (Kojo Kumi)  
- Public Health, Yellowknife (Bob Phillips)

MUNICIPAL WATER USE INSPECTION FORM

Date: August 13, 1997 COMPANY REP.: Blayne Penrice / Howard Babich  
LICENSEE: Hamlet of Cambridge Bay LICENCE #: N4L3-1532

WATER SUPPLY

Source (s): Water Lake Quantity Used (to date): N/A  
Owner/Operator: Hamlet (estimate or actual)

Indicate: A - Acceptable U - Unacceptable N/A - Not Applicable

Intake Facilities: A Storage Structure A - See Note 1 Treatment Systems A Chem. Storage A  
Flow Meas. Device A Convey. Lines A Pumping Stations A

Comments: See following pages

WASTE DISPOSAL

Sewage Sewage Treatment System (primary, secondary or tertiary) ~~Primary~~ # probably @ least secondary  
Natural Water body ☒ modified Continuous Discharge (land or water)  
Seasonal Discharge ☒ Wetlands Treatment 46 Trench

Solid Waste: Owner/Operator: Hamlet  
Landfill Burn & Landfill ☒ Other

Indicate: A - Acceptable U - Unacceptable N/A - Not Applicable

Disch. Quality Sample collected Decant Structure Note 4 Erosion A  
Disch. Meas. Dev. N/A Dyke Inspection A Seepages Note 7  
Dams, Dykes Note 2 Freeboard A Note 5 Spills N/A  
Construction Note 3 O & M Plan Note 6 A & R Plan Note 8

Periods of Discharge: Summer Effluent Discharge Rate: 2 - 3 l/sec.

Comments: See following pages

FUEL STORAGE

Owner: Operator Condition of Tanks  
Berms & Liners Water within berm: Evidence of Leaks:  
Drainage Pipes Pump Station and Catchment Berm  
Pipeline Condition Not Applicable: ☒

SURVEILLANCE NETWORK PROGRAM

Samples Collected: (Hamlet) Note 8  
(DIAND) 1532-1, 1532-2

Signs Posted: SNP Required Warning Required

Record & Reporting Note 9

Geotechnical Inspection: N/A

Non-Compliance of Act or Licence: 1995 - 1996 Annual Reports have not been submitted;  
O&M plan has not been submitted

Page 2 attached Yes ☒ No

Licensee Representatives Title

Not Available

Licensee Representatives Signature

Inspectors Name

Paul Smith

Inspectors Signature

## Inspection Report

Hamlet of Cambridge Bay  
N4L3-1532

13 August, 1997

### Water Supply

#### **Note 1**

The Hamlet is in the process of switching to a partial utilidor system. Treatment (Chlorination) will occur at the Water Lake and will be pumped via underground pipe to a central holding tank and distribution system in town. The large water consumers in town will be hooked up to this. All other users will remain on trucked service.

Presently, water is pumped from the water lake to town where it is chlorinated and kept in a large tank. A concern noted in the past is that fuel for the boilers at the pumphouse is stored in two 250 gal tanks. If there were ever an accident at the pumphouse, there would be no means of preventing the fuel from flowing the short distance downhill to the lake. What is planned with the improvements is a much larger 1100 gal double walled tank. This will have the benefit of being more secure as well as requiring less winter road maintenance (cost savings) for the fuel truck. Daily chlorination and testing will be accomplished by using a snowmachine for transportation.

The Hamlet should provide the Nunavut Water Board with a set of plans detailing the proposed changes.

A sample of raw water was collected. The results will be forwarded when available.

### Waste Disposal

#### **Note 2**

Part D, Items 3+4 of the licence requires that the sewage disposal facilities be operated with 1 metre of freeboard and in a manner that will prevent structural failure. These are terms and conditions more generally associated with a engineered and constructed lagoon. The sewage disposal facilities are more like a modified natural water body with some berming to limit the perimeter of the sewage treatment area.

#### **Note 3**

Part D, Item 6 of the licence requires that all bagged sewage be disposed of to the satisfaction of the Inspector. While there are no residents within the Hamlet on bagged sewage service, there are

many people that have cabins out of town and deposit sewage waste in an uncontrolled manner because there is no specified location for the disposal of bagged sewage. This deficiency has been noted previously and has yet to be rectified. Mr. Babiuk and the Inspector identified an appropriate location adjacent to the truck discharge pad where a bermed area could be constructed for bagged sewage. Seepage from the area would be into the sewage treatment area.

With respect to the truck discharge pad, there are 2 discharge points. One has eroded away and must be repaired. Mr. Babiuk indicated that when repairs are made, one of the discharge points will be relocated such that there will still be a suitable discharge point during high winds.

Another suggestion offered for consideration when the waste disposal site is being improved is the establishment of a wood salvage area and an animal carcass pit.

#### **Note 4**

The decant structure consists of a culvert running under a roadway. The only concern noted was a lack of any sort of warning sign. This is a public road. The SNP station sign is present. A water sample was collected at this station. Judging from the clarity of the sample, wetlands sewage treatment appears to be effective.

#### **Note 5**

Comments per Note 2.

#### **Note 6**

Part H, Item 1 of the licence requires an Operation and Maintenance Plan to have been submitted by February 1, 1997. This plan has not been submitted. The Nunavut Water Board has developed guidelines for developing O+M plans as well the licence identifies specific issues that must be addressed within the plan.

#### **Note 7**

A large volume of putrid standing water has accumulated along the toe of the dump. The problem is that there are low areas present and no means to control drainage. Mr. Babiuk indicated that he would like to drain the area (by gravity or sewage pumpout truck) and then infill the low points and grade them such that all flow is directed towards the sewage disposal area. This should be undertaken as soon as the means are available.

**Note 8**

Per SNP, Part B, Item 1, the Licensee is required to collect a variety of water samples once per year. Mr. Babiuk will be provided with the information required for him to make arrangements with the Taiga Environmental Lab to contract for the necessary analytical services.

**Note 9**

Part B, Item 1 of the licence requires that an Annual Report be submitted by March 31st of the following year. The Licensee has failed to submit both the 1995 and 1996 Annual Reports.

**General comments**

The dump needs to be covered with granular material. It also requires to be fenced.